

Kornitzer (J.)

THE
PATHOLOGY
AND
ABORTIVE TREATMENT
OF ALL
ZYMOTIC AND INFLAMMATORY
DISEASES.

AN ESSAY

BY

DR. J. KORNITZER,

(OF VIENNA),

PRESENTLY OF N. TOPEKA, KANSAS.

PRICE, ONE DOLLAR.



THE
PATHOLOGY
AND
ABORTIVE TREATMENT
OF ALL
ZYMOTIC AND INFLAMMATORY
DISEASES.

AN ESSAY

BY

DR. J. KORNITZER,

(OF VIENNA),

PRESENTLY OF N. TOPEKA, KANSAS.

PRICE, ONE DOLLAR.



Entered according to Act of Congress, in the year 1880, by DR. JOSEPH KORNITZER, in
the office of the Librarian of Congress, at Washington, D. C.

ALL RIGHTS RESERVED.

The Pathology and Abortive Treatment of the Zymotic and Inflammatory Diseases.

READ BEFORE THE ACADEMY OF MEDICINE, CINCINNATI, O.,
FEBRUARY 16, 1880.

So much is the American reader of scientific writings used to the luxury of elegantly elaborate articles, that I find it really necessary to proffer my best apologies for the liberty of appearing among the contributors to the medical literature of this country. Take as one of these apologies my sincere endeavor and promise to make up by practical usefulness for what I am lacking in elegance of style, and that for deficiency of language I do not feel at liberty to withhold from the profession what by study, observation, experience and experiment, I am convinced to be true.

I do not wish to expatiate any upon the utter deficiency of our knowledge, up to this day, in regard to the *pathology* of the diseases under consideration here; nor do I intend to entertain you with a critique on the great variety of *rational* treatments, so-called.

What I have to proffer to the profession is:

a. A true pathology of the zymotic and inflammatory diseases; a pathology by the guide of which we shall be able to point to morbid facts to account for each and every one of the symptoms, as they follow *after* and *from* one another.

b. An abortive treatment tending toward *undoing* those pathological facts, that is to say, to repair the mischief as far as done, and to prevent or, at least, greatly mitigate and disarm, the whole series of consecutive mischiefs.

A—PATHOLOGY.

1. In all diseases of the class under consideration some injurious influence, emanating either from some poisonous

matter or some teluric causes—let us not care here about etiological matters—some injurious influence, I say, thus affects certain vasomotor nerve centers; that the vessels presided over by the affected center or centers enter into a condition of *subparalytic relaxation*, while the rest of the vascular system, by the disturbed equilibrium, undergoes a state of *spasmodical contraction* of *shorter or longer* duration. It is evident that under such conditions the distribution of the blood volume, as a whole, must be very unequal, and if the vascular paralysis befalls some inner organ, a more or less intense rigor will be felt in the skin for a shorter or longer time. It is during this stage (*stadium algidum*) that the primarily attacked organ receives its first injury, which may prove fatal, if that stage lasts long enough, *e. g.*, in Cholera Asiatica. But in most diseases of this class the *heart* and the *ENTIRE rest of the vascular system* soon participate in the subparalytical relaxation, and this condition we call the stage of *pyrexia*.

The primary affection may befall the whole vascular system of a certain organ, *e. g.*, the skin in variola, the mucous membrane of the rectum in dysentery, or the vascular system of one stratum of such organ only; *e. g.*, the skin in morbilli or the mucous membrane of the rectum in catarrh of the rectum. Nay, more than that; the primary affection may even be limited to a subdivision of a certain stratum of an organ, *e. g.*, erysipelas.

This variety of cases is easily explained by assuming, as we do, one general vasomotor nerve center which commands over the entire vascular system of the body, and a large number of subordinate vasomotor nerve centers, presiding over larger or smaller subdivisions of the vascular system, all according to rank, similar to the officers of a military army.

The relaxation of the vascular system, both the primary, local and the secondary, general, may be *more or less* complete, all according to the individuality of the patient and the intensity of the injury. These circumstances will help in constituting the leniency or malignancy of a given case.

The stadium algidum hardly ever becomes an object of

medical treatment, except in Cholera Asiatica, of which I will come to speak later.

2. The heart and the *whole* vascular system, as I said, will soon be subparalytically relaxed. This being the case, the circulation must become greatly retarded and brought more or less near to a stand-still. How so? Let us see.

The heart stands widely open in its diastolic attitude, able only of feeble attempts at systolic contraction. The blood column is scarcely moved onward, and, but for the relaxed condition of the artery, pulsation would scarcely be perceptible to the exploring finger, as it is really the fact at the acme of high fever paroxysms. The veins must evidently soon become gorged with blood. The capillaries, too, will contain an unusually large proportion of the bulk of blood on account of their being the least resistant part of the bed of the blood current, and because of the reflux by way of the engorged veins being greatly impeded, while the unimpaired elasticity (I don't say contractility, but unimpaired elasticity) of the arteries still constitutes a relatively considerable (*vis a tergo*) force from behind. The arteries, *of course*, will have far less than their usual share of blood; very much like the distribution of blood in the cadaver.

3. Whereas a *fraction* of a systole requires less time than a complete one, and whereas the diastole, on account of the but scanty blood wave it has to take, is also but fractional; therefore, *the heart action in fever paroxysms must become accelerated in proportion to its ~~efficiency~~ inefficiency*.

4. According to what I said, the parietal or side pressure within the arteries must evidently be greatly reduced, and therefore, the elimination of the urine and sweat nearly suspended. For remember, urine and sweat are filtered off the arterial blood by way of those so called wonder nets which constitute the glomeruli in the kidneys, and one of which surrounds each sudoriferous gland. These wonder nets (*retia admirabilia*) are arteries, divided and coiled up arteries, which reunite in an artery again. Now the urine and sweat contain a great deal of the oxydization products in solution; hence, if these fluids are not

secreted, *those highly oxydized elements will be retained in the blood.*

5. In natural consequence of this—and probably because the elements of the blood are undergoing, for a reason you are soon to hear, an oxydization-process higher than physiological—*the bodily heat must rise.*

6. This heat, by the simple law of expansion, will cause an increase in cubical volume of the blood.

7. By this expansion of the blood in volume, in combination with the presence in the capillaries of an absolutely increased proportion of blood and, probably, by a histologically diseased condition of the capillary walls, these walls become exceedingly extenuated and permeable to such an extent as to allow not only an excess of plasma to escape through their widened meshes, but also an exodus of multitudes of globules. For what else are petechiæ than escaped globules in groups, dense enough to make the optical impression of red. But, generally, it is the white globules that emigrate.

8. Now let us consider the condition of things. On one hand, the tissue interstices of *all* organs, and especially of the organ idiopathically diseased, *inundated with a plasma swamp, teeming with proliferous minute organisms;* while, on the other hand, the blood is robbed of, qualitatively and quantitatively, most important constituent parts: The blood, I say, robbed of its vital parts, *without receiving by way of its feeding pipe, the thoracic duct, the necessary new supply of chyle, that fresh, alimentary material of low oxydization,* so essential for the maintenance of the physiological condition of the blood. For let me demonstrate here that:

9. *The main forces in forwarding the lymph and chyle are utterly impaired in this class of diseases.*

One of these forces is the diastolic movement of the heart. This diastolic movement, I am afraid, is perhaps a little too slightly thought of as a dynamic force. Let me give you an illustration. Suppose the heart to be inclosed in a rigid capsule, say of bone, for instance. It is evident that in such a case a vacuum would arise at every systole, between the heart and the inner surface of that capsule,

and that because *natura vacuum horret*, the heart would return to its diastolic attitude, not with a mere passive relaxation, but a considerable active force, which would necessarily exert a considerable suction on the neighboring large veins and indirectly on the thoracic duct. Now, the pericardium is not a *rigid* capsule, it is true; but, on account of its being fixed to the sternum, the diaphragma and the mediastina, it will, to a certain extent, act as such.

Another very important and efficacious force in forwarding the lymph and chyle is *the difference of pressure within the thoracic and abdominal cavities*—that of the latter being the larger—and that *difference* still increasing at every inspiration.

A further momentum in the onward movement of the lymph and chyle is the *contractility and the valves* of the lymphatics and lacteals and the contraction of the skeleton muscles in bodily exercise.

Now let us see how matters stand in this regard during a fever paroxysm.

a) The lymphatics and lacteals, like the rest of the vessels, are in a subparalytical state;

b) The inspirations are shallow and inefficacious, the excursions of the diaphragma small;

c) There is no bodily exercise;

d) The cardiacal suction is greatly impaired on account of there being but small diastolic movements.

e) The lymphatics, including the thoracic duct, that delta of the lymphatical system, are filled up to their utmost capacity with stagnant contents, and the mesenterial and lymphatic glands are obstructed by the excessive proliferation that is going on in them, or, may be, by the invasion into them and accumulation of white globules.

Now it is evident that under such circumstances *the resorption and onward movement of the lymph and chyle must come to an almost absolute standstill.*

And it is these two items (8 and 9) that constitute the mortal danger in all diseases of the class under consideration here. These diseases are, in fact, identical in all essential characteristics, and differing only in regard to

locality, that is to say, in regard to the vasomotor nerve centers primarily injured. In all disorders of this class we have to deal (1) *with some more or less extensive local or primary exudation*, and (2) *a general exudation which is diffused all over the system*.

Now, true it is that the general or diffused exudation contributes much toward mitigating the local or primary inflammation which otherwise would be liable to become very quickly destructive to the organ primarily concerned and probably to life. By this diffused exudation we are gaining time.

But, on the other hand, it is evident, that, *unless reabsorbed in time*, this general or diffused exudation is liable to prove deleterious by its *exhausting the blood*; by its *mechanical* interference with the vital functions of *all* organs; by the *quick septic metamorphosis* which, on account of its displacement and of the excessive heat, it is sure to undergo; by the *exhaustive secondary fevers* it is sure to bring on when imbibed into the veins, and, besides and above all, by its being a hinderance, an impediment to the much-desired absorption of the local or primary exudation.

In an abscess on the surface of the body, on the arm, for instance, you have a fine, instructive miniature picture of fever. A small organ, a follicle of the skin, in a state of intense primary inflammation forms the center of the abscess. Around this you see an area of secondary infiltrated tissue, which, by degrees, is going over into an area of oedematous tissue. Had the primary inflammation been treated *in time* under an energetic antiphlogistic scheme, those secondary exudations would certainly have been prevented. But these secondary exudations once established, the inflammatory symptoms of the center, heat and pain, etc., considerably subside, it is true, but a larger or smaller proportion of tissue, 'together with the follicle, will fall a prey to necrosis, that is *death*, because absorption has become impossible on account of the neighboring lymphatic vessels and glands having become obstructed by the invasion of the *plastic* exudation.

Take now, in place of a diseased follicle of the skin, a lobe

proliferans

of the lungs or a section of the alimentary canal, and you have the central *point* of the abscess, to which the remainder of the system will constitute the surrounding *reacting* area.

Now in the manner followed up, I could easily expound all the rest of febrile symptoms, as: *thirst*, by the displacement of the fluid parts of the blood from within the vessels; *anorexy*, by the repletion to their utmost capacity of the lacteals with highly nourishing matter, like after a *very rich* meal; the *cerebral symptoms*, by the exudation, pressure and lack of arterial blood in the brains *a. s. f.*; but what I have said up to this, is quite sufficient to draw indications for.

B—THERAPEUTICS.

The first of all indications within our reach to fulfill is:

To quickly evacuate the clogged up thoracic duct and to keep its passage free in order to re-establish and maintain lively resorption all over the system.

By bringing about this the blood is, at the same time, **fed** (by receiving the contents of the thoracic duct), and the exudation, by its being reabsorbed, is *saved from decomposition* or, at least, from further decomposition.

To fulfill this *vital* indication *quickly, safely and perfectly*, there is nothing better than *Repeated Vomiting*. I say, *Repeated*, since, in order to be really beneficial, it must be induced every eight to twelve hours in the first two or three days, and after this once in the twenty four hours, as long as the fever is threatening to become high.

The mechanism of the act of vomiting I certainly need not describe here; it will suffice to say that the powerful and symmetrical **pressure** of the abdominal muscular system (*pre'm abdominalis*) will press out the alimentary canal like a sponge. The contents of the stomach and, in part, the duodenum, will escape by the oesophagus, of course. But that is the least thing performed by the vomiting act. The most important is *the forwarding of the contents of the intestinal villi and submucous cellular tissue toward and into the thoracic duct, and so to shove the con-*

tents of this large canal onward and into the left sub-clavian vein.

And that is not yet all. There are further advantages to gain by the vomiting act which the skilled physician will be glad to take into the bargain, viz.:

a) The abdominal aorta being compressed by the muscular action of the *prelum abdominale* during this act, the brains will receive a number of rich waves of arterial blood—a fact that, under the circumstances and for many an obvious reason, can not be too highly appreciated.

b) The liver and the lower and upper *venae cavae* will also have to disgorge their stagnant contents of blood and have them shipped to the heart. This last organ, expanded by the full waves of venous and portal blood *forced* into it, will soon be aroused to, and resume its double function of, suction and force pump.

c) The intumesced spleen will certainly be depleted.

d) And besides, and above all this, the *Ipecacuanha*, which is to be applied for the purpose under consideration here, is certainly known to every practitioner to be a most energetic tonic on the vascular system and bowels, acting, as it is, on their muscular strata. By this potentiary virtue of this remedy, the *intra-vascular pressure* will soon increase, the *kidneys and sudoriferous glands will act and the system will COOL DOWN.*

The next indication is to *protect, by local appliances, from decay and getting virulent* such exudations as appear on accessible surfaces.

For this purpose I prescribe, *e. g.*, in scarlet, measles, variola and other exanthemata: Merc. sublim. corros. gr. L. Spir. vin. rectific., Glycerin., Aq. destill. 4 oz. each. Of this solution three to four tablespoonfuls are to be poured out on a saucer and, by means of a barber's brush, applied all over the body, care to be taken of the apertures. This to be repeated three to four times in the twenty-four hours. I never had to regret the application of this powerful wash.

For the throat in Diphtheritis I prescribe: Chloral. Hydr. 1 dr., Aq. destill. 2 oz., Glycerin. 1 oz.

To be applied to the throat by means of a probang—not a brush—every hour at least.

Or, better yet, Rp. Acid. tannic. gr. viij.

Salicyl. Sod. scrup. ij.

Bibor. Sod. gr. x.

Sacch. Albi. oz. j.

A pinch of this powder to be given every hour or oftener.
(At the end of this paper you will find the special treatments of all diseases of this group.)

The last—and, in fact, the least—indication is: to regulate and keep up the heart action. This purpose is reached by the administration of some cinchona preparation, say, quinine or a decoction of the bark in wine, to be given in the intervals between the vomitions, when the action of the remedy will be found to be *startlingly prompt*, for the obvious reason of its being *readily absorbed* and carried to the blood.

When I call the fulfillment of this indication the least one in the treatment of the diseases in question here (with the exception, however, of fever and ague), I do so from experience, as in many a serious case of scarlet, typhoid fever and pneumonia, I brought my patients smoothly through, without seeing any necessity of administering even as little as one grain of quinine or kindred preparations.

In directing again the attention of the reader to the items 8 and 9 of the pathological part of this article, I herewith venture to state that, with the emetic in hand, the profession can henceforth consider the whole class of zymotic diseases as *altogether void of danger*, provided again, the emetic is *repeatedly*, i. e., as often administered as a rise of fever announces itself. For, as to the stage of eruption, this, safe in the high aged or debilitated, scarcely ever becomes fatal in either of these diseases; and as for the subsequent stages—why, there is the point—*all those dread and agonizing phenomena are sure not to make their appearance at all*, if prevented—as they can be—by the repeated act of vomiting; and, if already present when the practitioner sees his patient for the first time—why, let him reach for the emetic and annihilate them and look out for a good result. If one morning, when you come to see your

little scarlet patient, you find him feverish—though he had been in full convalescence for several days—don't investigate long, as to with whom the fault be, but administer Ipecac in a vomiting dose as often as necessary and right what there is of wrong. By thus undoing the mischief set by the fever you can save every one of your scarlet patients of normal constitution. Whether this is to say too much, the near future will teach; to me one thing is clearly evident, and that is that my Pathological sketch contains the main points of truth in regard to the actual (not mere phenomenal) nature of the zymotic and inflammatory diseases, and that my method of treatment, being based on those points, is preventive, aggressive, safe, radical and scientific, and not expectative, risky, symptomatical and speculative. I should be inclined to call it the Surgical treatment of this class of inner diseases.

Should the vomiting last alarmingly long and bring on depression, a few drops of Spir. of Turpentine will remedy both and be at the same time beneficial in other respects. The smelling of Nitrite of Amyle may also be useful, but I have had no opportunity to apply it up to this time.

And now a few words separately on

CHOLERA ASIATICA.

This disease differs from the rest of this class by a *protracted* and, therefore, *very dangerous stadium algidum*, that is, that stage of vascular contraction, mentioned above, which precedes the relaxation and which, in other zymotic and inflammatory diseases, hardly ever becomes a subject for medical attendance.

PATHOLOGY.

1) Spasmodic contraction, *sneakingly and by slow degrees*, sets in all over the vascular system, *heart*, arteries, veins and lymphatics, with the exception, however, of that part which carries blood to and from the entire digestorial tract; and which, on the contrary, is dilated, either paralytically or passively, I do not know. Nor can I, in truth, state whether it is in fact the whole intestinal canal that is implicated or the large intestines only. I have reasons to

assume the latter to be the case, but it makes hardly any material difference for the purpose in question.

The march of this process—mark, please—*is very slow, but steady*, so much so that in many individuals it will occupy several days before their getting aware of the seriousness of their case. The passages are pretty copious, but not excessive, and but slightly, or not at all, painful, and, therefore, slighted by the patient, as he remembers of apparently more serious cases of that nature having occurred with him before. This stage is called the stage of *malaise*.

2) But as the contraction of the vessels reaches a certain degree, things assume quite a different feature. As the vessels contract more and more upon their contents, the intravascular pressure becomes excessive, and by the simple laws of hydrostatics the blood will escape toward where there is the lesser resistance, that is, to the bowels. But there, too, the blood is under very unfavorable circumstances. For, as the heart scarcely dilates for a diastole, it can not draw from the veins; these, therefore, will soon fill up to their utmost capacity and the blood of the overloaded capillaries be entrapped and pressed between an insurmountable resistance in front and a relatively considerable pressure from behind.

3) Under such circumstances (excessive pressure and counter pressure) the blood will have to give up its liquid parts, and these will escape by whatever way they can; to say, through the walls of the capillaries and small vessels, and appear on the surface of the intestinal canal to be discharged in form of those copious watery passages, so characteristic of Cholera Asiatica. But ALL over the vascular system, not in the vessels of the bowels alone, the blood in the capillaries is under an excessive pressure—as may be easily inferred from the great difference between the contractility of the arteries and veins on one hand, and that of the capillaries on the other. And hence it can not surprise us when we see excessive secretion on other surfaces of the body *besides* that on the inner intestinal surface. This accounts for that clammy, continuous, though not profuse, sweat and the slight pulmonary and laryngeal oedema that makes breathing so difficult and the voice whispering.

The transudation on the inner surface of the intestinal canal, impetuously precipitated, as it is, by high pressure from within the vessels, must necessarily detach a great deal of epithelium; hence the characteristic rice-water like passages. The kidneys being, under the described circumstances, in great disadvantage, as to secreting surface, against the skin and alimentary duct, will secrete but little, that is true; but this little under such a high pressure as to carry off epithelia; hence—and from other causes—the consecutive kidney disease in cholera.

4) Thus the contents of the vascular system dwindle away till, like before death from profuse hemorrhage, spasms of the skeleton muscles make their appearance. The abdomen is sunk in, and hard as a board, on account of the prelum abdominale being spasmodically contracted. This expels the contents of the bowels and stomach. There is a terrible pain in the precordial region on account of the heart being contracted, the diaphragma lowered, etc.

5) Resorption under the existing statical circumstances, can not reasonably be looked for; nay, even imbibition (endosmosis) has become nearly impossible, and whatever you may trust in this stage to the stomach will either be thrown up or lie there inert, to do more harm than good. This stage is called the stadium algidum, the stage when the doctor is urgently called for.

6) This stage, if not fatal, as it is apt to prove, makes place to a third stage, called, as you know, cholera typhoid, and which I need not describe here, being, as it is, a fever disease like others.

Much more could be said in analysis of this disease, but the points hitherto given are sufficient for the purpose of drawing indications for

TREATMENT.

First indication: *Check the spasms, both, vascular and muscular.*

In effecting this, and within five to ten minutes, too, you are doing for the patient an essential, not a mere symptomatic, service, for the reason of the vascular spasm being

the most dangerous feature of this disease, as is easily to be seen from what I have said.

To fulfill this indication, make one hypodermical injection of morphia on each calf of the leg, one in the gastric and one in the cardiac region, consuming all in all one-fourth to one grain of the salt.

After a few minutes the patient will not fail (I speak from experience) to express his comfortable feeling, and this ought to be taken as a hint to fulfill the

Second indication, viz.: to try to prevent, as vigorously as possible, the appearance of the third stage of the disease, that is, the stage of general vascular relaxation and exudation—in one word, the typhoid stage.

To this end it would constitute an utter failure, and, scientifically, a culpable loss of time, to take in requisition the services of the alimentary canal. But rather inject hypodermically syringe full after syringe full of a diluted solution of quinine, until four to eight grains of the drug are consumed. The whole procedure requires fifteen to twenty five minutes. Make the injections skillfully.

Third indication: *Try to reach the primary exudation with a powerful antiseptic.*

For this purpose prescribe Sulph. Zinc dr. i., Aq. destill. oz. vi., Carbol Acid Scrup. i., extr. Ergot. fl. dr. ij. Of this one to two tablespoonfuls are to be added to an injection consisting of starch water, to be applied once or twice every twenty four hours. *This indication is highly IMPORTANT.*

Fourth indication: *Dilute the inspissated blood.* Give a piece of ice wrapped in a cloth, cold punch (with lemon and wine, no brandy), sour whey, good buttermilk, hot black coffee, all in *small* frequent doses; soup, beef tea, etc.

Fifth indication: In the typhoid stage, should it appear at all, give the emetic in proper intervals, improving the hours between for the administration of a quinine solution *per os* and mild nourishment. Give wine, or, in default of this, brandy in lemonade, because the stomachs of this class of patients require acidity and no alkalescence.

When in 1833, during the Austro-Prussian war, a raging cholera epidemic had broken out in Moravia, I was holding

the position of surgeon in chief of a section in a hospital for the wounded in Klosterneuburg. I had scarcely learned of the fact, and that physicians, willing to go to the scene of horror were in demand and appointed by the government, than I left my hospital and hastened to Moravia. "Them was lively times," to be sure. The hypodermic syringe was yet a novelty at that time, and the use of this instrument in cholera, where the digestory tract is such an unreliable recipient of medicine, had continually busied my mind. I was longing for a cholera epidemic—at last, it was here. I was the only man who used the syringe freely and exclusively in fulfilling the first and second indications. I also fulfilled the fourth, but had no idea as yet of the existence of the third and fifth indications. Now, in spite of this deficiency, my method of treatment was startlingly successful. Fifty-five per cent. of the diseased was the general death rate in Brunn, a city of about 80 to 100,000 inhabitants, where skillful medical attendance was promptly to be had. I had something less than twenty three per cent., including those cases I had not seen at all before death had ensued. Moreover, I never saw a case before the priest had administered the sacrament. Besides, I had a round of several villages to make. I had arranged it so as to be at a certain place every day at noon, to take my dinner, and while there I often learned that I had been sought after as early as nine o'clock in the morning to call on parties in the village which I intended to visit in the afternoon. In one family, I remember, I found a man of about forty years, and his son of about twelve, both of whom were sick in the stadium algidum. The head of the family was a grandfather of about seventy, still well. This latter would address me about in this wise: "Doctor, you are sent here by the government and, therefore, all respect and esteem to you; but if you dare to touch one of my family, you must not expect to leave this room alive." Within three days he and his son and grandson were buried. This was in the first week of my activity there; later, when better known, I had not to experience such flattering treatment.

Now, in spite of all these disadvantages—of this I am morally sure—my lists would certainly have shown a far

smaller death rate, had I then known what I now know ; for—curious as that may sound—in the typhoid stage I should have given ipecac in vomiting doses as often as required, and injections into the rectum of the solution of sulpho-carbolate of zinc, as mentioned above. I did not lose a single patient in the stadium algidum under this treatment. There is another thing that ought not to be forgotten. I was, in the beginning of my cholera practice, at least, a little tardy and parsimonious with my quinine injections, postponing them to the next day. That was not right, but it took some time before I became aware of it. The quinine solution for hypodermical use ought to be well diluted and the injections cleverly performed.

A—FEVER AND AGUE.

By long and extensive experience and close observation I have arrived at the full conviction that this is a disease of the lower part of the intestinal canal. I have seen cases of typical intermittent fevers where flesh water-like stools, containing numerous cast-off follicles, were discharged. Many other *obstinate* cases of this disorder have occurred to me which, at last, culminated in a stage very much resembling dysentery, with dark, offensive stools, containing blood, mucus and even albumen. It is, furthermore, a known fact that almost unexceptionally every patient of this kind feels “bilious,” as they call it, during the prodromal stage of this disease, and will not fail to take “pills” before applying to the “doc.” Another fact in demonstration of this, with me, established truth is, that many cases of intermittent fever are ushered in with diarrhea and without any palpable cause for the same. In one word, I never met with a case where there was not more or less intestinal trouble, either spontaneously and emphatically complained of by, or, by proper inquiry and investigation, elicited from the patient. If, therefore, dysentery is *croup* of the rectum (Rokitansky), intermittent fever is certainly a deep-seated, *malignant* catarrh, an *influenza* of this organ, or, perhaps, of the whole of the large intestine. I can heartily recommend the following treatment :

(1 Give the emetic once and, if possible, during the pyrexia. It will greatly contribute toward the *prompt* and *full* action of the rest of medication. The emetic is very useful in this disease, in the saving of time, trouble and money, and, in obstinate cases, it certainly ought not to be slighted, for the reason of its assistance in depleting the abdominal viscera (liver, spleen, etc.), which, in this, as in other fevers, are likely to become, first, hypostatically hyperaemical, then hypertrophical, in order to, at last, irrecoverably degenerate by colloid metamorphosis. In fresh cases, however, the emetic may be dispensed with.

2) Administer quinine in proper doses and at proper intervals. The solution is certainly the best form. (Formula No. 2.)

3) *Give one injection into the rectum of the Zinc Solution in starch-water every day and continue to do so for several weeks* (Formula No. 3.), *irrespective of whether there is any diarrhea or not.*

4) Diet and hygiene I need not touch upon. Acidulous drinks are very useful: wine, lemonade—no whisky without some acid.

B—DYSENTERY.

1) The emetic once every day until convalescence is apparent. Do not be afraid of its cathartic action. (Formula No. 1.)

2) Quinine, in combination with opium. (Formula No. 2.)

3) A *small* injection after every passage of the Zinc Solution in starch-water. These injections might sometimes prove painful, but this must, by no means, deter the physician from applying them. By diffusion they will spread all over the rectum and even higher.

4) Diet and hygiene are known. The patient must be kept in bed until solid passages have been discharged.

C—TYPHOID FEVER AND TYPHUS.

The treatment of these diseases, with but slight modification, is like that of dysentery. Less opium is needed, if any at all. The injections which, by diffusion, will reach the diseased small intestines, may be larger and less frequent.

say, twice in the twenty-four hours. Administer the emetic every twelve to twenty-four hours for three to five days, when apparent convalescence will set in. Quinine given in the intervals will prove very efficacious under this treatment. The course and duration of these diseases will be altogether different from what the profession, up to the present time, has been accustomed to. Many a practitioner, I know, will be impressed as though he had made a mistake in the diagnosis.

D—MENINGITIS CEREBRO-SPINALIS.

- 1) Administer the emetic every twelve hours.
- 2) Quinine during the intervals.
- 3) Apply, by means of a brush, the solution of Iodine (Formula No. 4) to the shaved occiput and back part of the neck, cover with cotton and, above this, with a bag, pretty well filled with dry, hot bran, in order to develop the Iodine vapors and prevent them from escaping.

E—YELLOW FEVER.

I have never seen a case and so the method here given may be taken merely as an advisory suggestion.

By what I learn from different articles on this subject, I am induced to believe that a *croupous inflammation of the pyloric part of the stomach and the duodenum* is the material basis of this dreadful disease; in fact, an *icterus of the highest malignancy*—which would certainly create more jaundice, but for lack of time, owing to its quick fatality.

If I am *not* mistaken, then by all means

- 1) The emetic every eight to twenty-four hours;
 - 2) The much diluted Zinc Solution, *per os*, in very small doses;
 - 3) Quinine *per anum*, and
 - 4) The Iodine Solution (Formula No. 4), and large, hot poultices to the right side.
- Acidulous drinks, rest, etc.

F—SUMMER COMPLAINT.

This disease, incident, as it is, to the hot months and a

certain period of anatomical evolution of the infantile digestory canal (both of which can not be doctored away), must be fought against all through that season. If there is any fever, give "that" grain or two of calomel with a few grains of Chloride of potassium and then

1) Half a teaspoonful of Castor Oil, to which two Drops of Spirits of Turpentine have been admixed, daily on an empty stomach.

2) Injections into the rectum of Zinc Solution (Formula No. 6) in lukewarm starch-water, once daily. After the injection it is advisable to take the child on the arm, so as to have it *sitting* on the forearm and thus prevent the too early expulsion of the enema. Should this, however, not be succeeded in, then another injection must be made a few hours later. This procedure must be kept on with as long as the symptoms continue to be alarming; as soon as they subside, both injections and oil may be restricted to two or three times a week in order to be resumed at the first sign of recrudescence.

3) In the afternoon, when the day is hottest, bathing with luke-warm water, with a good deal of vinegar in it, is very advisable. It takes some skill to do this to the advantage of the little patient. Do not strip the child entirely, but bathe one leg, wipe and cover, then the other leg, then the belly, then the chest and arms, then the back, always wiping and covering up as soon as done bathing; else congestion of the bowels is quite sure to take place. Belly and buttocks must be kept carefully covered with flannel: nor must the legs be left naked.

4) As to diet, I have scarcely anything to add to what is known to the profession; it must be given the strictest attention. Mother's milk is best, of course, but then the mother must try her best to keep up her own condition in as good a hygienic state as possible. If wet nursing can not be had, cow's milk ought to be used only twice a day, in the morning and evening, immediately after milking, and *not without adding a few grains of Salicylate of Soda and some refined sugar*. For the rest of the day strong soup, prepared from as lean beef (no bones) as possible,

with farina or barley (all *very* well done), is the best one can give. Red wine, with cool, fresh water, constitutes the best drink for this class of patients, but then the wine must be kept very cool and carefully bottled and corked, in three ounce bottles, or else the child will get vinegar in progress of fermentation instead of wine. *Wash the child's mouth with a weak solution of Salicylate of Soda several times in the day and night.* Beware of having the little patient take cold. Much air is desirable, it is true, but for the lungs only, not for the skin.

G—CHOLERA INFANTUM,

So called from its striking resemblance to Cholera Asiatica, is, to my full conviction, nothing but chills and fever, in that form formerly called *febris algida*, and supervening *protracted and neglected* summer complaint in infants. This very definition infers the almost hopelessly dangerous nature of this disease. Nevertheless I will make the following suggestion, which, from my point of view, seems to be worthy the attention of the profession. I have never as yet had an opportunity to apply it:

1) One hypodermic injection of one twenty fourth of a grain of Morphia—or less—or a hot full bath.

2) As soon as reaction is perceptible, use the wash (Formula No. 7) all over the body every two or three hours, always keeping the patient wrapped in a warm blanket.

3) Ice water by the teaspoonfuls every minute or two. Ice cold soda water from a syphon is *not* desirable. Here and there a few drops of lemon juice ought to be added to the water, such patients always craving acids.

4) Injections into the rectum of the Zinc Solution (Formula No. 6) in luke warm starch-water every few hours.

5) Should the so called typhoid, indeed, however, uraemic, stage make its appearance—why, reach for the emetic. Tell those present that it is the last resort, and affords but little prospect of success. This idea is not at all new, Bernard having pointed to the use of emetics in uraemia long ago; he, however, assumed a *modus operandi* different from what I suggest.

6) Should success crown the practitioner's noble task, let him guard the convalescent to prevent a relapse. The child must be kept warmly and *uniformly* clad, head, neck and arms *not* excepted. The quinine wash ought to be kept on with for several weeks, applying it once or twice daily.

H—DIARRHEA IN THE AGED.

This heading is not to be found in the nomenclature of our text books, I know; but the fact of the diarrhea in the aged being very often unmanageable to the common treatment, may stand as an excuse for my dedicating to it a few separate lines.

- 1) Opium, of course, but do not fail to apply
- 2) The Zinc Solution (Formula No. 3) in luke warm starch-water as an enema. Not before "natural" passages have appeared in evidence of restored health must the patient be allowed to leave his bed.

I—PERITONITIS.

- 1) Emetic, once daily.
- 2) Morphia.
- 3) The Iodine Solution (Formula No. 4) locally with hot poultices.

In incipient cases it may prove of great value to apply the constant current, placing the *negative* electrode to the diseased spot and the positive one to some neighboring part.

J—PUERPERAL FEVER.

- 1) Emetic, once daily.
- 2) Morphia, Quinine, Iron in small doses.
- 3) The clear Zinc Solution (Formula No. 3) to the vagina by means of lint or a small sponge. Renew frequently.
- 4) The Iodine Solution (Formula No. 4) with hot poultices to the hypogastrium, or the hot poultices only and the suppositories (Formula No. 8), one to two a day, but no longer than is absolutely necessary.

K—ICTERUS.

1) The emetic once daily.

2) Lemon slices thickly covered with *salt*. It is good to salt the slices several hours before taken.

3) Keep your patient in bed and let him or her have hot poultices to the epigastrium.

L—CYSTITIS.

1) Poultices to the hypogastrium, in bed, of course.

2) Suppositories (Formula No. 9), one to two a day, but no longer than is absolutely necessary.

3) A decoction of a handful of good uncolored *green* (unroasted) coffee in a pint of water, to which a few grains of Lupulin may be added, is to be given by tablespoonfuls every hour or two.

M—INFLAMMATORY RHEUMATISM.

1) Emetic every day, and during the highest pyrexia.

2) Quinine or Salicylate of Soda. (Try to do without it: you will succeed).

3) A fly blister, the size of a silver half dollar, to be placed in the region of the apex of the heart. Take off after twelve hours, remove the epidermis and, by means of two peas on adhesive plaster and proper bandaging, keep the sore open and, in the interest of the patient's future health, continue the same for several weeks.

N—PNEUMONIA (Croupous or Bronchial)

IN ADULTS OR CHILDREN.

1) Give the emetic once in twenty-four hours for the adult, and twice to thrice for infants. Try to dispense with it in the adult.

2) Quinine. Try to do without it.

3) A blister, size: from one quarter of an inch to one inch in diameter and placed between the Deltoid and Biceps muscles of the arm of the diseased side. Remove after six to twelve hours and, by means of one to two peas and proper bandaging, keep the sore open—for months. This method may possibly contribute to diminish the future death rate from consumption. In children a bead or two

of the size of a hemp-seed may be applied instead of a pea. Renew the dressing every day. Beware of bandaging tighter than is necessary.

4) When the emetic is discontinued—which is likely to be the case after one to three days—a few small doses a day of Pulvis Doveri to the adult will prove useful. Some cough syrup, if necessary at all, will do for children.

O—BRONCHITIS, LARYNGITIS, LARYNGEAL CROUP, TUSSIS CONVULSIVA AND ASTHMA.

1) Emetic, but only in Croup (every six hours), and once daily in Whooping-Cough, Bronchitis and Laryngitis.

2) *The constant current.* Apply in Whooping-Cough, Asthma, Bronchitis and Laryngitis, every day, or every alternate day, for ten to fifteen minutes at a time, a current of from four to ten cells, by placing the *negative pole to the larynx and trachea* and the positive one to the epigastrium. As to Laryngeal Croup, apply for a period of not less than two hours at a time, a four to six-cell current in the same way, and repeating the same every few hours.

3) If Quinine and Iron are desirable as roborants, I have no objection to their application.

4) As a preventive, warm clothing, affording *uniform* protection *all over the body*, stands foremost. I do not believe in *keeping head and neck cool*. To this out-of-place *hardening* scheme it is due that our children are taking cold after cold; the one before the foregoing one has been cured, to the great detriment of the yet tender respiratory surface which, by this chronically diseased condition, must necessarily suffer in histological qualities and, therefore, in functional fitness. All warm-blooded animals, fowl and quadruped, have their richest plumage and hair on the occiput and nape; man alone wants to have these important parts exposed, irrespective of temperature—*Fashion!*

P—ERYSIPELAS.

1) Emetic, once a day. Do not neglect that, if you wish a sure and speedy cure. Let me state here that in not one of the diseases herein named have I ever been induced to

make use of the emetic more than five times at most. Two to three times has been the rule, after which apparent convalescence always manifested itself.

2) Paint with Tincture of Iodine.

Q—HEPATITIS AND PYLEPHLEBITIS.

1) Emetic, once a day.

2) Hot poultices locally.

R—CONJUNCTIVITIS CATARRHALIS,

Either acute or chronic—apply of the constant current, the negative pole (sponge with luke warm water), to the eye and the positive one to the nape. Three to four sittings will do in acute cases, where a brisk purge will prove a valuable auxiliary.

CONCLUSION.

I do not claim this chapter of special pathology and therapeutics to contain the *full* and scientifically sifted truth. To men of higher talents and better opportunities it must be reserved to corroborate, correct and develop the ideas herein set forth.

But I do claim that what I have advanced is a sufficient guide for the well-educated practitioner.

I am fully satisfied that the ideas laid down here are destined to bring about a radical reform in the therapeutics of the feverish diseases, and that the simple truths contained in these pages will largely contribute toward their early acknowledgment by the profession.

Actuated by an earnest desire to disseminate in the interest of the profession and suffering humanity at large, all the good within my power I have during the past year sent to the Governments of Austria, Russia, Prussia and Brazil, and also to the Howard Association, at Memphis, Tennessee, manuscripts embodying in substance the contents of these pages.

In connection with this work I would state that criticism is cordially invited; and any experiences of the treatment as herein set forth would be highly acceptable to the author.

FORMULA.

- No. 1. Pulv. Ipecac. dr. ij.
 Tart. Emet. gr. i.
 Syr. Scillae. oz. i.
 Aq. Fervid. oz. iij.

D. S. Emetic. Shake and give from a small teaspoonful to a large tablespoonful, according to age, every ten minutes until vomiting ensues.

- No. 2. Sulph. Quin. scrup. i.
 Acid. Mur. Dil. Pur. q. s. ad solut.
 Aq. Destill. oz. iv.
 Syr. Rub. Id. oz. ij.

When wanted for subcutaneous or rectal injection the syrup, of course, must be substituted by as much water.

- No. 3. Zinci Sulph. dr. i.
 Acid Carbol. scrup. i.
 Extr. Ergot. Fl. oz. i.
 Aq. Destill. oz. v.

D. S. One to two tablespoonfuls of this solution to be added to a cupful of luke-warm starch-water and used as an injection into the rectum. The patient must be directed to retain the enema and allow it to be absorbed. The rectum ought to be previously emptied.

- No. 4. Iodini Pur. gr. vi.
 Iodid. Potass. dr. ij.
 Glycerin. Pur. oz. i.

D. S. For external use.

- No. 5. Ol. Terebint. oz. i.

D. S. Give a few drops in syrup when the vomiting is excessive.

- No. 6. Sulph. Zinc dr. j.
 Acid. Carbol. gr. xij.
 Extr. Valerian Fl. oz. j.
 Aq. Destill. oz. v.

D. S. One tablespoonful to be mixed with a starch-water injection for a child.

No. 7. Sulph. Quiniae. dr. ij.
 Acid. Mur. Dil. Pur. q. s. ad solut.
 Alcohol. oz. xij.
 Ol. Juniper. Ether. oz. ij.

D. S. Wash.

No. 8. Extr. Hyoscyam. Sol. gr. viij.
 Morph. Sulph. gr. iii.
 Butyr. Cacao. dr. i.
 Cerae. Albae. gr. x.

Fiant. Suppositoria. No. 8.

D. S. Suppositories. One to two in the twenty-four hours.

No. 9. Extr. Belladon. Solid. gr. ij.
 Morph. Sulph. gr. iij.
 Butyr. Cacao. dr. j.
 Cerae. Alb. gr. x.

Fiant. Suppositoria. No. 8.

D. S. Suppositories. Use one to two in the twenty-four hours.

No. 10. Nitrit. Amyl.
 dr. iij.

D. S. Three to five drops on cloth for inhalation.

No. 11. Oxyd. Zinc. scrup. j.
 Crem. Tartar. dr. ij.
 Sacch. Lact. oz. j.

D. S. One teaspoonful in water every six hours.

This Formula I know to be very useful in Jaundice, and is likely to be so in Yellow Fever.

APPENDIX.

Has the Emetic ever before been made use of *in the manner and for the physiological (mechanical) purpose* set forth in these pages?

It can not be denied that, during many centuries preceding our relatively very young era of Rational Medicine, Emesis was largely practiced in feverish diseases; but *certainly not* for the purpose of conveying to the exhausted blood new and easily-oxidable material. It was, on the contrary, with the view of preventing the alimentary supply, stored up in the stomach, from being digested and carried into the "diseased blood" (humoral pathology), that the Emetic was eagerly resorted to—but then, of course, it was administered *but once*, and what good this accomplished was *FRUSTRATED* by the *then rational* repeated bleedings and purgings; *depletion* having been the word of the day.

As to the ancients, we are told that they were offering divine worship to the Squill *for its wonderful effect in fevers*. This strongly conveys the idea that this bulb had been administered *in vomiting doses, and repeatedly, and hence, with wonderful success*.

With our knowledge, we, in our days, need not wonder at such a result. The very fact that, during epidemics, so many escape without molestation, others recover from severe attacks without any medical attendance, and others again, *in spite* of medical attendance of most diverging sorts—these facts, I say, furnish strong evidence that our so-called infectious diseases must be easily mastered. And so, in fact, *THEY ARE* by the repeated administration of Ipecac in vomiting doses.

Human reason, at a certain period of development, found the belief in the divine power of the Squill to be a superstition unbecoming the elucidated mind—and for that *reason*, gave up both Squill and superstition.

When, in our days, Rational Medicine, on "her" march from conquest to conquest, recognized Emesis for the purpose of depletion to be nonsense, "she" abandoned both nonsense and Emesis. It was not rational enough to have a place in the arsenal of modern medicine.

Now, I hope, I have *made* it rational, and I confidently repeat that, provided the mischief of the first few shocks in these diseases is repaired by means of repeated Emesis, the *stunned* vasa-motor nerve centers will soon recuperate their disturbed equilibrium, and the local lesions will also become more easily yielding to a relatively mild treatment.

ERRATUM.

On page 5, paragraph 3, last line should read: *must become accelerated in proportion to its inefficiency.*

